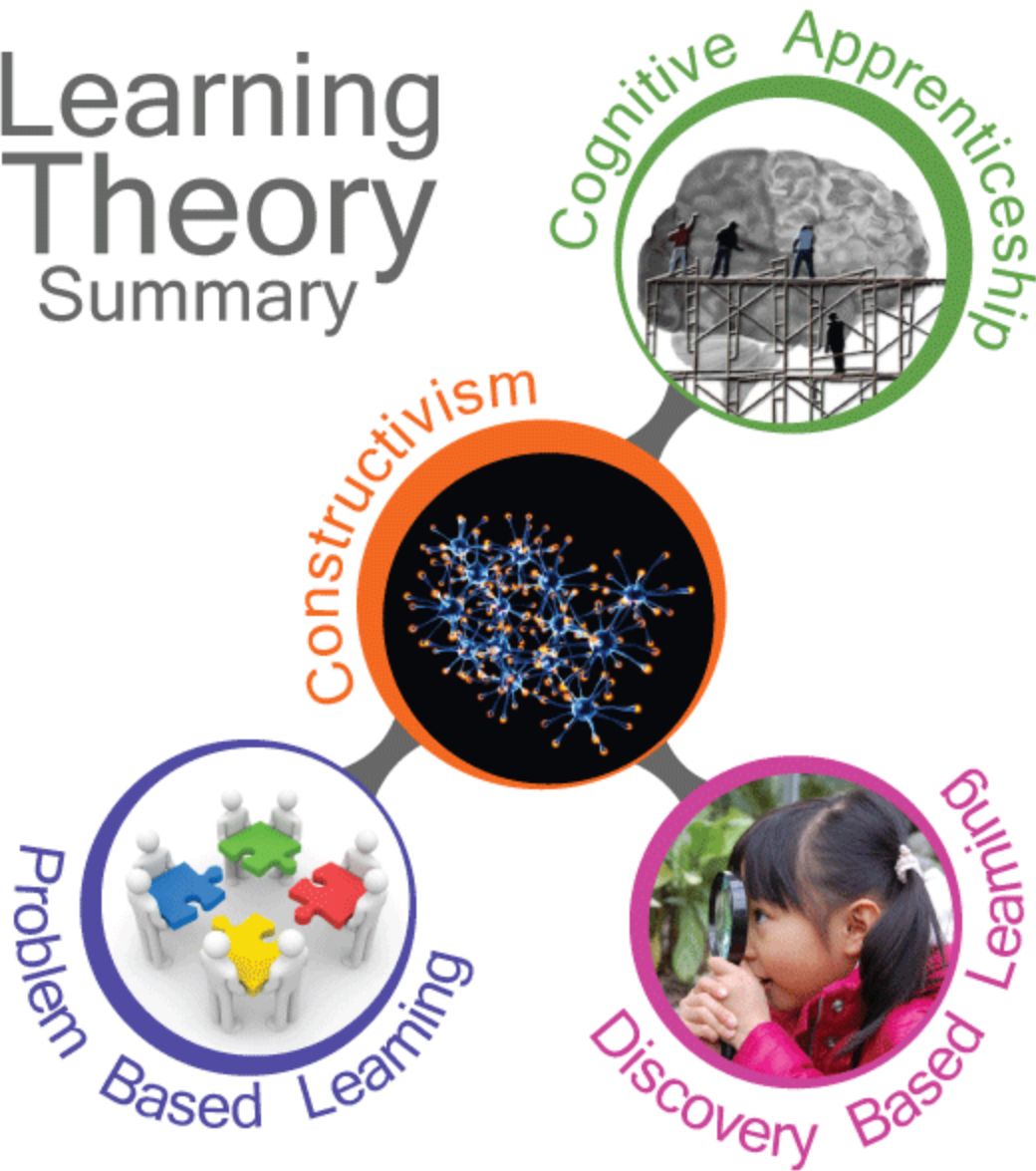


Learning Theory Summary



By Adele Hedrick

Learning Theory Summary

Constructivism

The [constructivism theory](#) describes learning as an active process that the learner undergoes to create their own knowledge. A part of the knowledge retention is to link the new information with prior knowledge. Even though a classroom of students are being given the same lesson, each student's learning is subjectively based upon their prior knowledge. By relating new content to previous content or real world examples, a teacher can help students make the connections that help a student understand and retain new knowledge.

Problem Based Learning

[Problem based learning \(PBL\)](#) involves student lead learning, where the students collaborate together to solve a real world problem, and the teacher takes on a role as a facilitator. The PBL method encourages problem solving and critical thinking skills, but is time consuming so it should only be used when it would be most beneficial to the student. An appropriate time to use the PBL method, would be as a consolidation of a lesson or unit, in which the students have to apply concepts they learned to solve an application problem.

Cognitive Apprenticeship Theory

The [cognitive apprenticeship theory](#) involves a teacher providing full support or “scaffolding” initially for the student. As a student gains confidence and understanding, the teacher takes components of the support or “scaffolding” away. The theory also includes reflection and exploration components. Students are to reflect on what they learned, specifically their discovered processes of problem solving, and then later further their understanding by exploration, research, and collaboration with other students. The scaffolding approach could be applied to students who lack the confidence in a subject area, and in some cases a student peer could be used as the subject expert and offer the support and coaching for the student in need of the support.

Inquiry and Discovery

[Inquiry and discovery](#) based learning places the student in a exploration situation where they discover relationships and concepts, rather than being told the relationships and concepts. There is the potential for students to gain misconceptions about what is to be learned, so it is important that a teacher uses formative assessment throughout the activity, and consolidates any learning done through this method (e.g.: class discussion), to ensure the students did in fact discover the intended knowledge. This form of instruction could include the use of manipulatives and technology (e.g.: Algebra tiles, Geometer's Sketchpad), in an independent or collaborative setting.